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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,822	05/12/2006	Christophe Colignon	LAV0313825	7282

29980 7590 06/12/2007  
NICOLAS E. SECKEL  
Patent Attorney  
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WASHINGTON, DC 20036

EXAMINER
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TRAN, BINH Q

ART UNIT	PAPER NUMBER
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3748

MAIL DATE	DELIVERY MODE
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06/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/595,822

Applicant(s)

COLIGNON, CHRISTOPHE

Examiner

BINH Q. TRAN

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/12/2006</u> . | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters below:

#### *Drawings*

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because there are several blocks in Figures 1-2 have not labeled. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the drawing, are required in reply to the Office action. Appropriate correction is required. No new matter should be entered.

#### *Specification*

- The disclosure is objected to because of the following informalities: The following headings of the specification are missing, such as

- *Background of the Invention. Brief Summary of the Invention. Brief description of the drawing(s), and Detailed Description of the Drawing(s)* as required by 37 FR 1.74. Appropriate correction is required.

- The disclosure is objected to because of the following informalities: *Applicant is reminded of the proper language and format for an abstract of the disclosure.*

“The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure

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sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.”

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose or render obvious the claimed combination including means for detecting a request to purge sulfate so as to control the feeder means in order to engage operation of the engine in the second, level 1 strategy; means for monitoring the activation state of the catalyst-forming means to engage the fourth, super-calibrated level 2 strategy; means for acquiring the temperature level in the exhaust line to engage operation of the engine with a rich mixture when this temperature level exceeds a predetermined target temperature during a predetermined first time period or for switching off sulfate purging if this temperature is not reached before a predetermined maximum second time period expires; and means for monitoring the rich mixture operation of the engine: to cause the engine to operate in lean mixture in the third, level 2 strategy at the end of a third predetermined time period; to cause the engine to operate with a lean mixture in a fourth, super-calibrated level 2 strategy if the temperature level in the exhaust line drops below a predetermined low temperature threshold during a fourth time period; to cause the engine to operate with a lean mixture in a second, level 1 strategy if the temperature level in the exhaust

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line exceeds a predetermined high temperature threshold during a fifth time period; to maintain the engine operating in this second, level 1 strategy during a predetermined forcing sixth time period or until the moment when the temperature level in the exhaust line has dropped back below the high temperature threshold minus an hysteresis offset during a seventh time period; to cause the engine to operate with a lean mixture in a first, normal strategy when the temperature level in the exhaust line has not dropped back below the high temperature threshold minus the hysteresis offset at the end of a maximum cooling eighth time period, until the temperature level in the exhaust line has dropped back below said high temperature threshold minus the hysteresis offset during the seventh time period; to maintain the operation of the engine in lean mode in one of the following strategies: super-calibrated level 2, level 2, level 1 or normal, as defined above, during a ninth time period; and at the end of said ninth time period, if the temperature level in the exhaust line lies between the predetermined target temperature and the high temperature threshold, to loop control of the engine back starting from operation with a rich mixture until a request is detected to stop sulfate purging, said request being detected by corresponding detector means.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents:

Meyer et al. (Pat. No. 6615577), Hertzgerg (Pat. No. 6637198), Kaneko et al. (Pat. No. 7127883), Cullen et al. (Pat. No. 5722236), and Colignon (Pat. No. 7152397) all discloses an exhaust gas purification for use with an internal combustion engine.

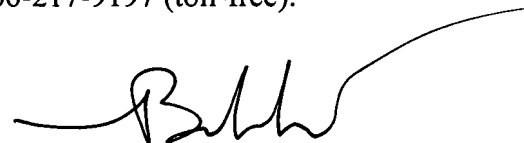
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT  
June 10, 2007



Binh Q. Tran  
Patent Examiner  
Art Unit 3748